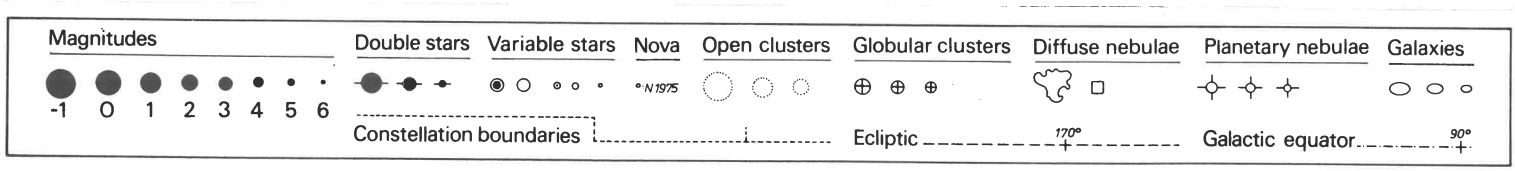
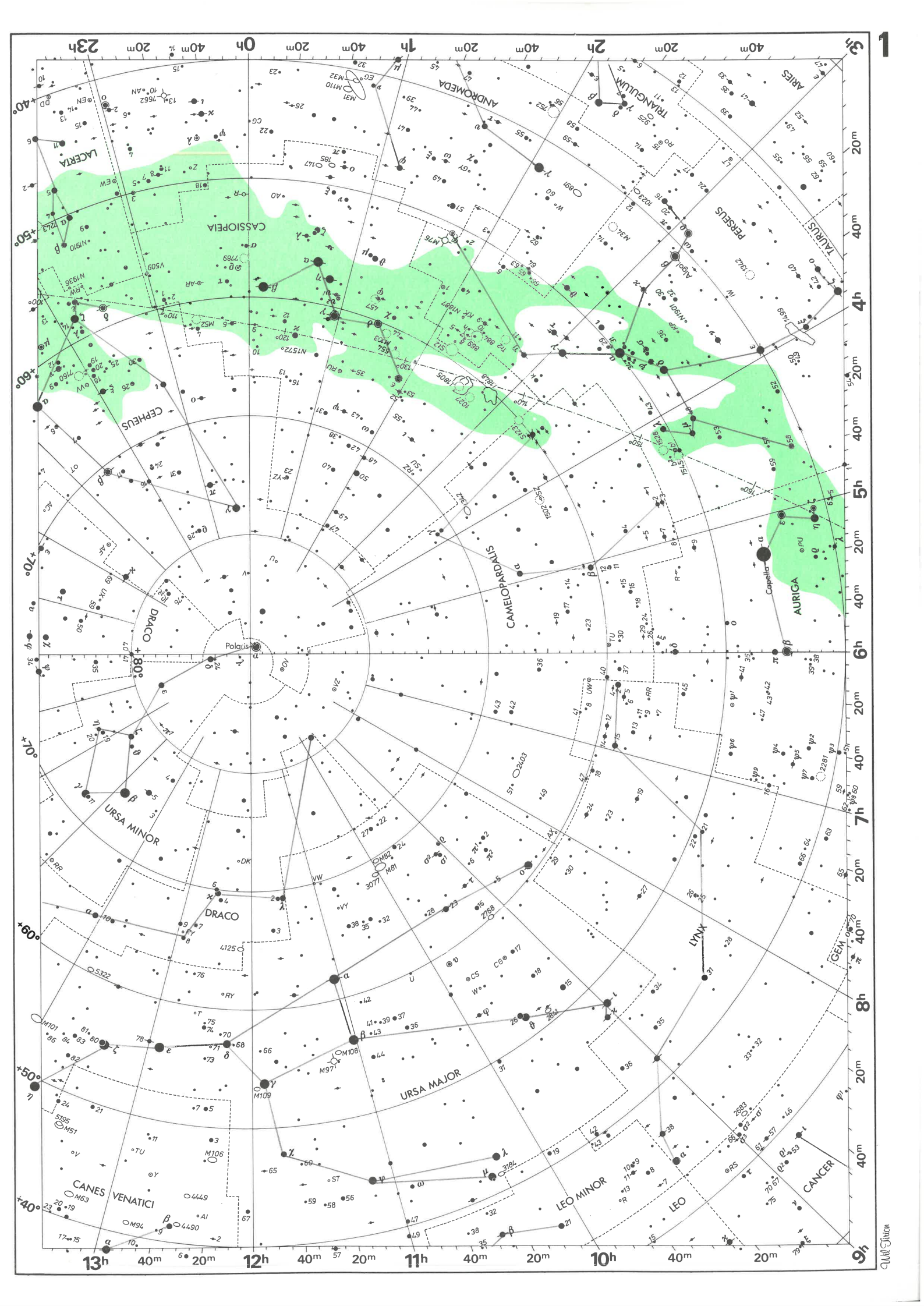
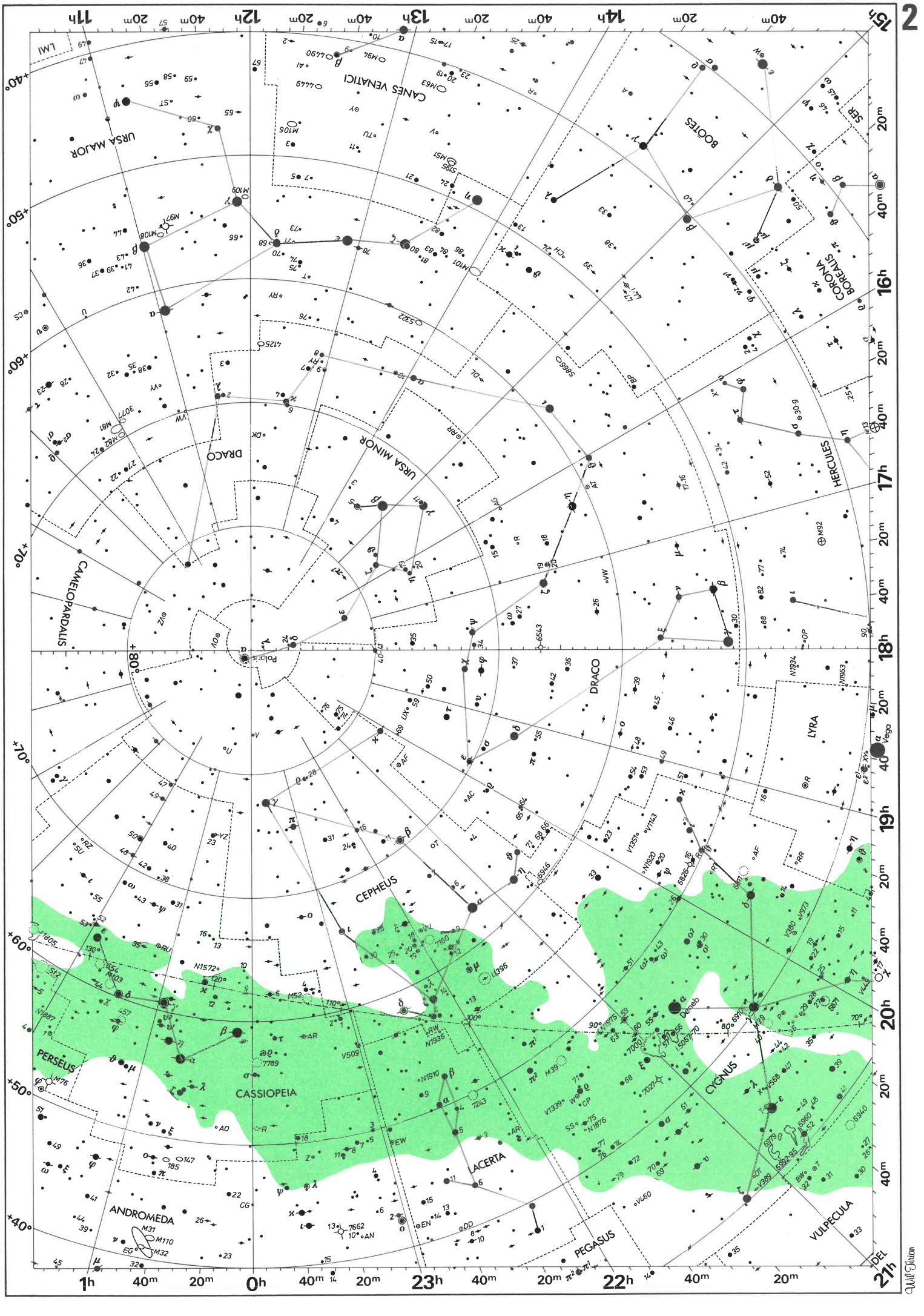
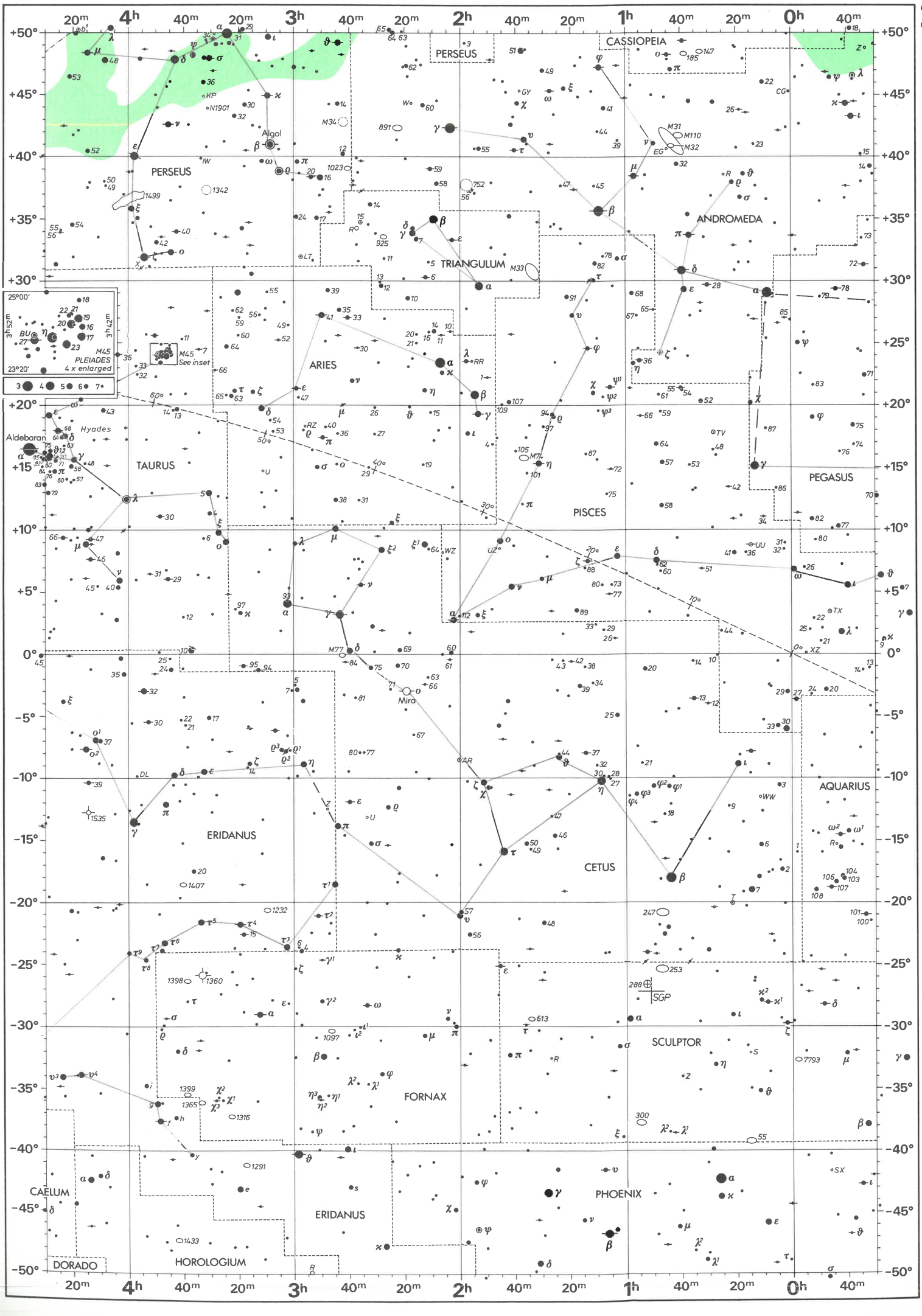
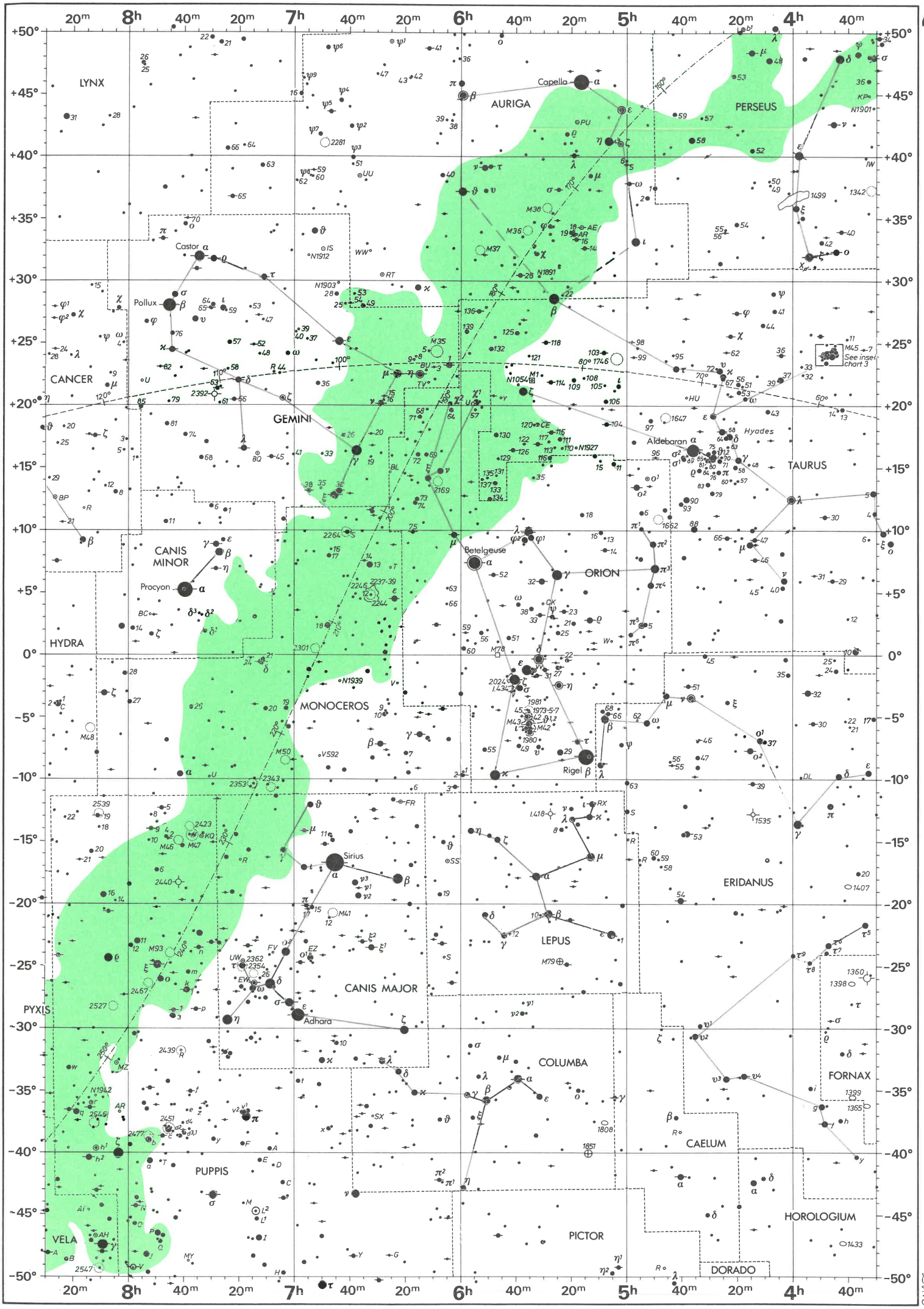

Magnitudes
-1 0 1 2 3 4 5 6
Double stars
Variable stars
Nova
°N1975
Open clusters
Globular clusters
Diffuse nebulae
Planetary nebulae
Galaxies
Constellation boundaries
Ecliptic
170°
Galactic equator
90°


1
23h
0h
1h
2h
3h
ANDROMEDA
TRIANGULUM
ARIES
PERSEUS
TAURUS
AURIGA
Capella
CASSIOPEIA
LACERTA
CEPHEUS
CAMELOPARDALIS
DRACO
Polaris
URSA MINOR
DRACO
LYNX
GEM
URSA MAJOR
CANES VENATICI
LEO MINOR
LEO
CANCER
+80°
+70°
+60°
+50°
+40°
13h
12h
11h
10h
9h
Will Tirion

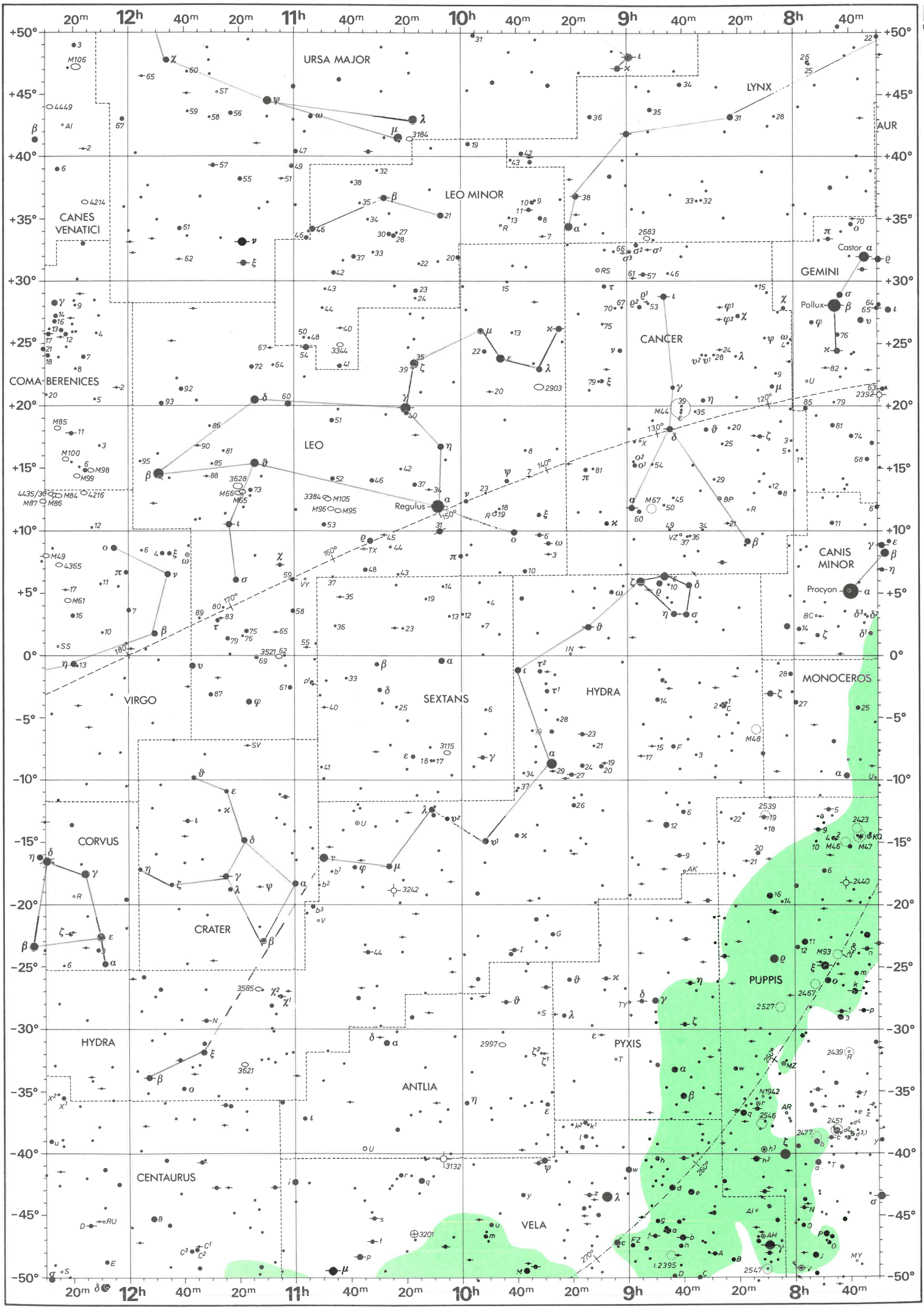

URSA MAJOR
CANES VENATICI
BOÖTES
CORONA BOREALIS
HERCULES
URSA MINOR
DRACO
CAMELOPARDALIS
LYRA
CEPHEUS
CASSIOPEIA
PERSEUS
ANDROMEDA
LACERTA
CYGNUS
PEGASUS
VULPECULA
Polaris
Vega
Deneb
M31
M110
M32
M81
M82
M92
M13
M57
M27
M56
M71
M29
M39
M52
M76
M103
M15
M2
M30
M72
M73
M75
M74
M77
M33
M34
M103
M76
M52
M39
M29
M27
M71
M56
M57
M92
M13
M30
M15
M2
M72
M73
M74
M75
M77
M33
M34

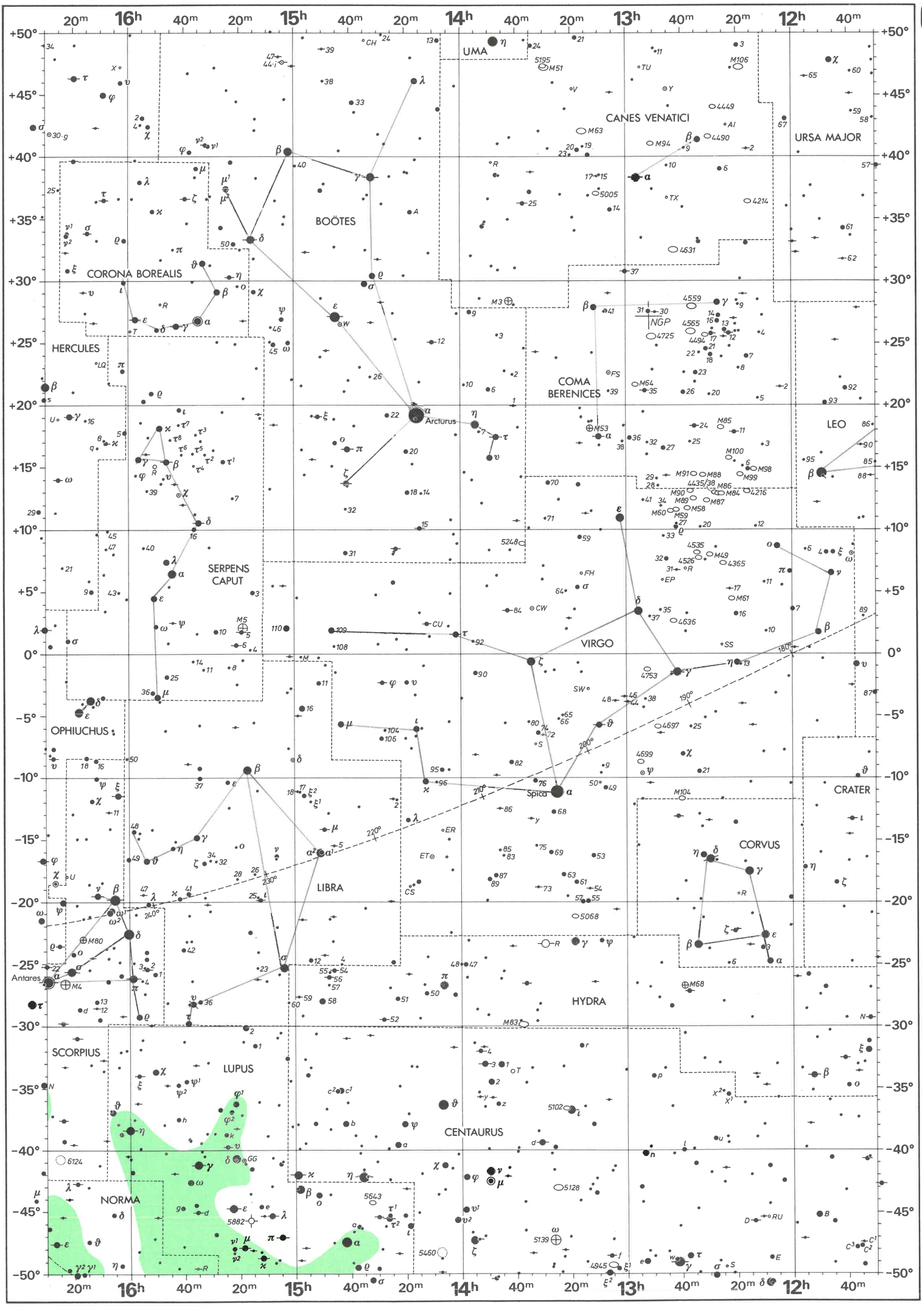

CASSIOPEIA
PERSEUS
PERSEUS
Algol
ANDROMEDA
M31
M110
M32
TRIANGULUM
M33
ARIES
TAURUS
Aldebaran
Hyades
PLEIADES
M45
See inset
4 x enlarged
PISCES
PEGASUS
Mira
ERIDANUS
CETUS
AQUARIUS
SCULPTOR
FORNAX
SGP
CAELUM
ERIDANUS
PHOENIX
DORADO
HOROLOGIUM
20m
4h
40m
20m
3h
40m
20m
2h
40m
20m
1h
40m
20m
0h
40m
+50°
+45°
+40°
+35°
+30°
+25°
+20°
+15°
+10°
+5°
0°
-5°
-10°
-15°
-20°
-25°
-30°
-35°
-40°
-45°
-50°

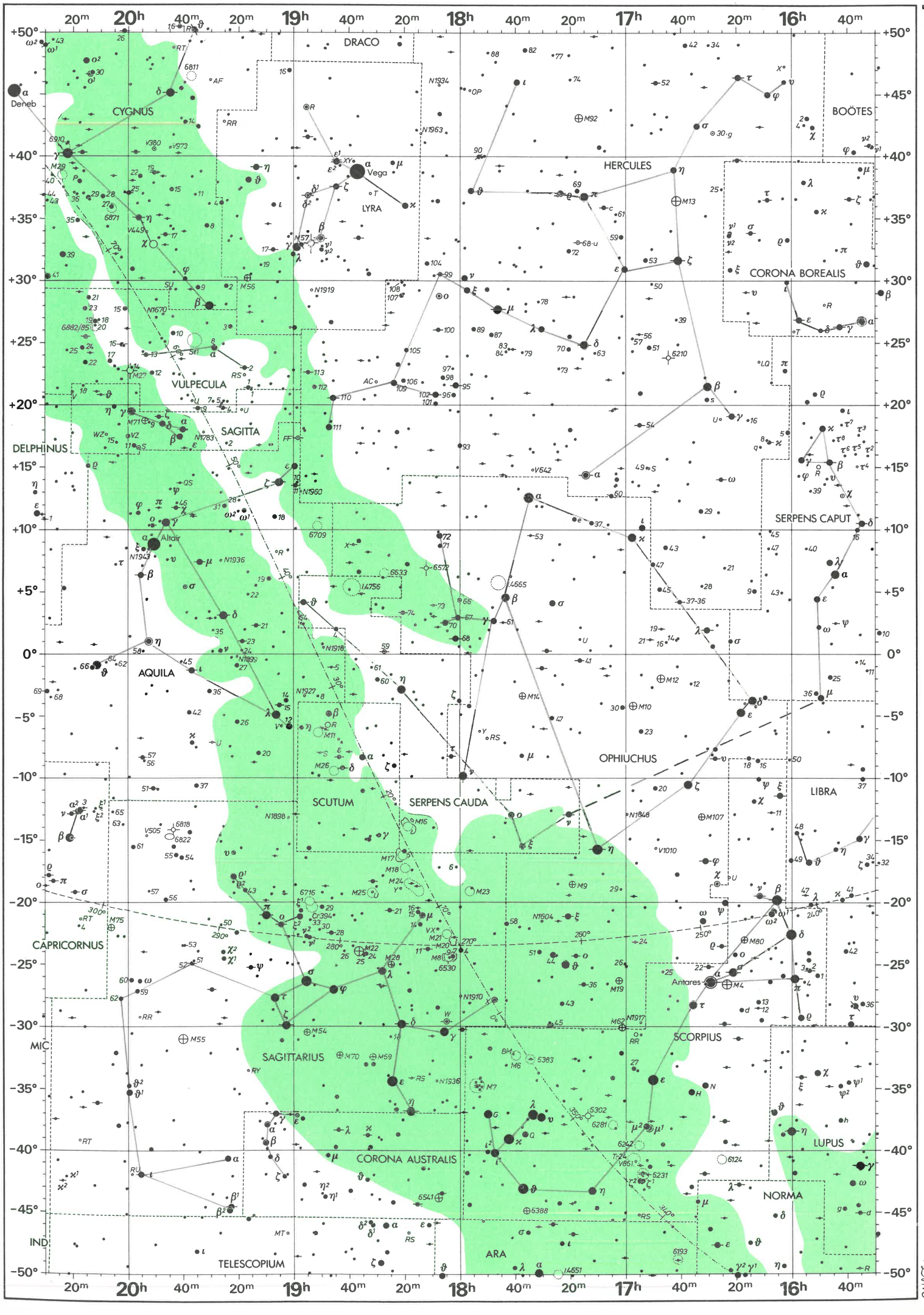
Will Tirion

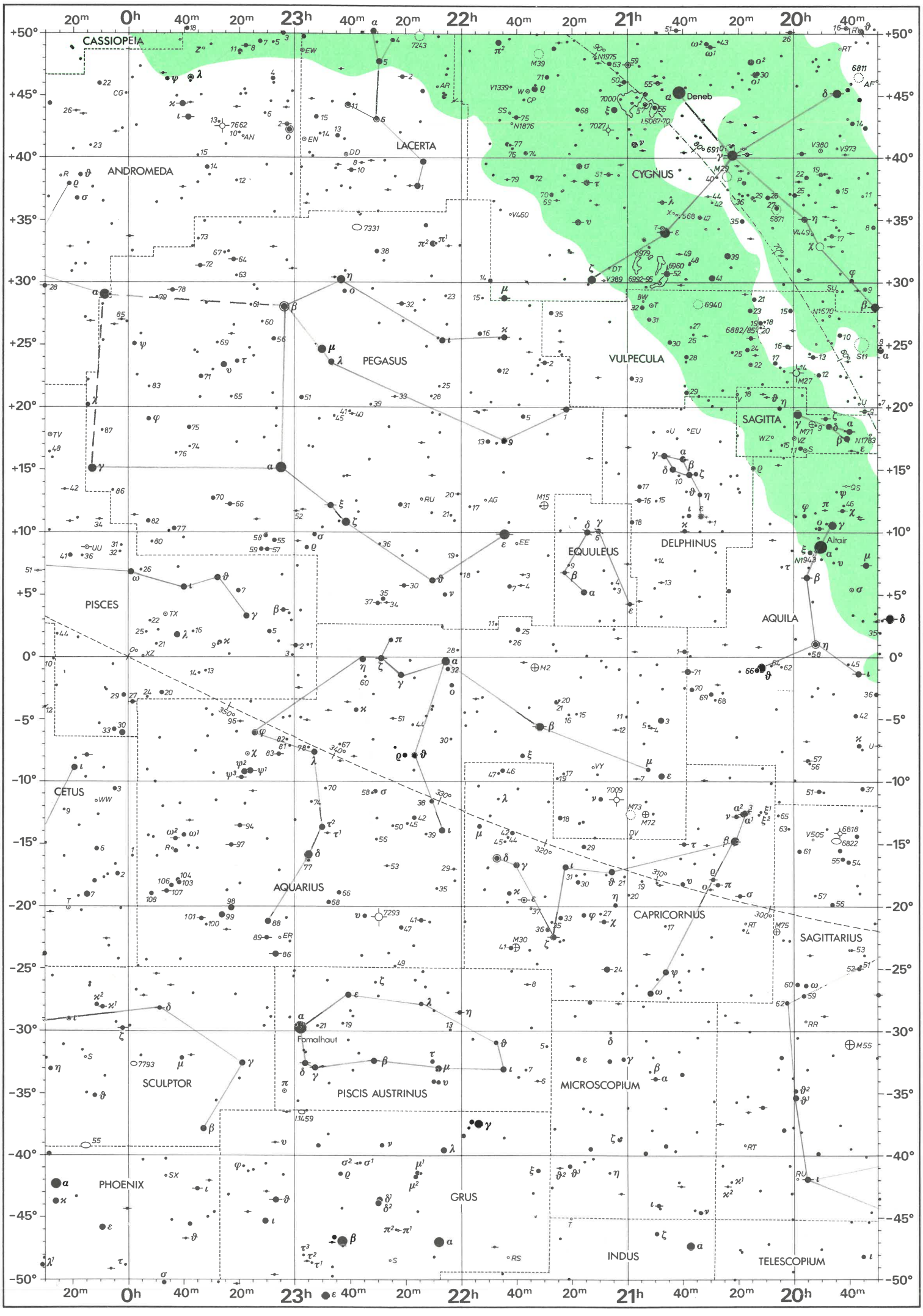

LYNX
AURIGA
PERSEUS
Capella
Castor
Pollux
CANCER
GEMINI
CANIS MINOR
Procyon
HYDRA
MONOCEROS
Betelgeuse
ORION
Aldebaran
Hyades
TAURUS
Rigel
Sirius
ERIDANUS
LEPUS
CANIS MAJOR
Adhara
PYXIS
COLUMBA
FORNAX
CAELUM
PUPPIS
VELA
PICTOR
HOROLOGIUM
DORADO
See inset chart 3
20m 8h 40m 20m 7h 40m 20m 6h 40m 20m 5h 40m 20m 4h 40m
+50° +45° +40° +35° +30° +25° +20° +15° +10° +5° 0° -5° -10° -15° -20° -25° -30° -35° -40° -45° -50°

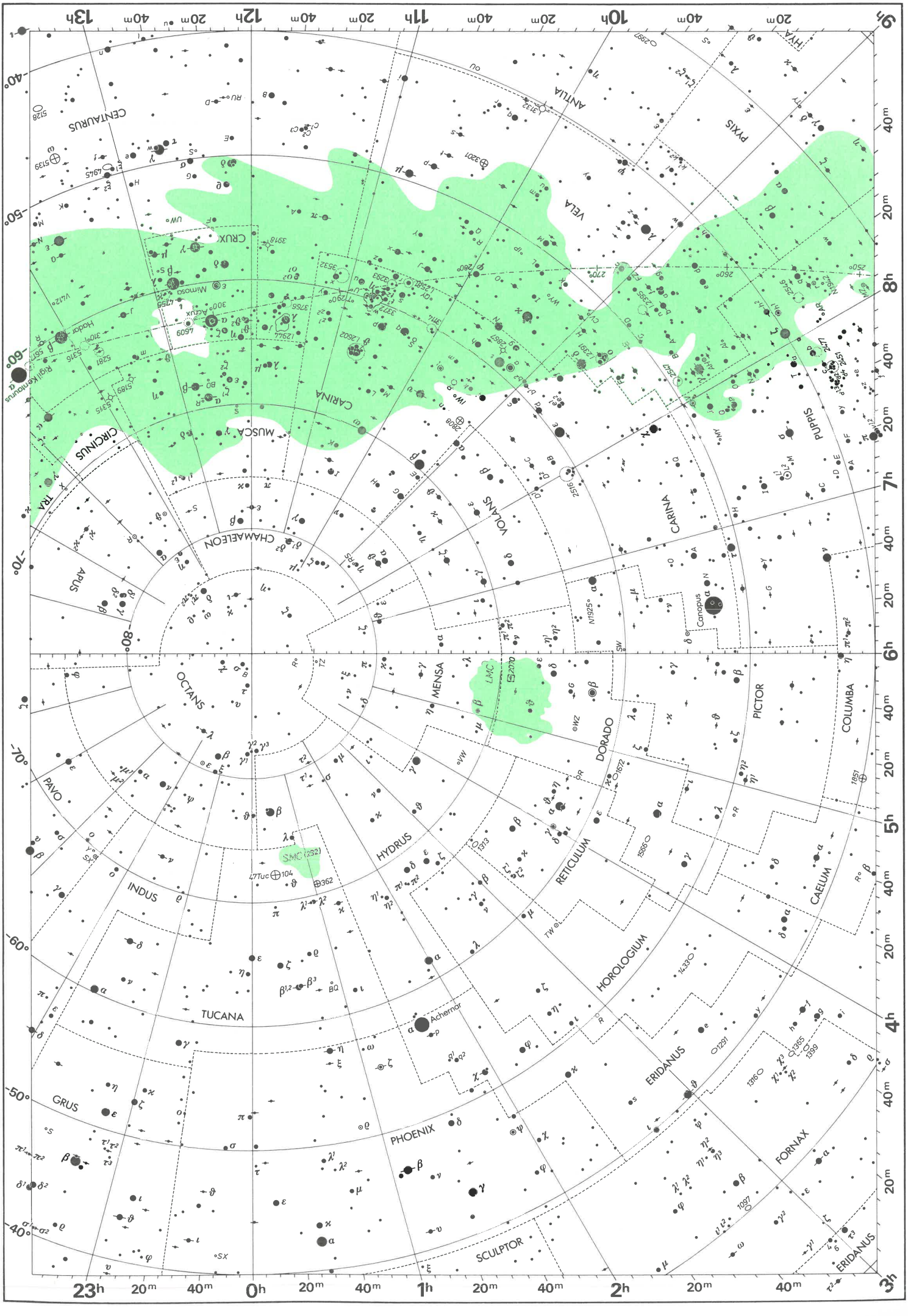
Will Tirion

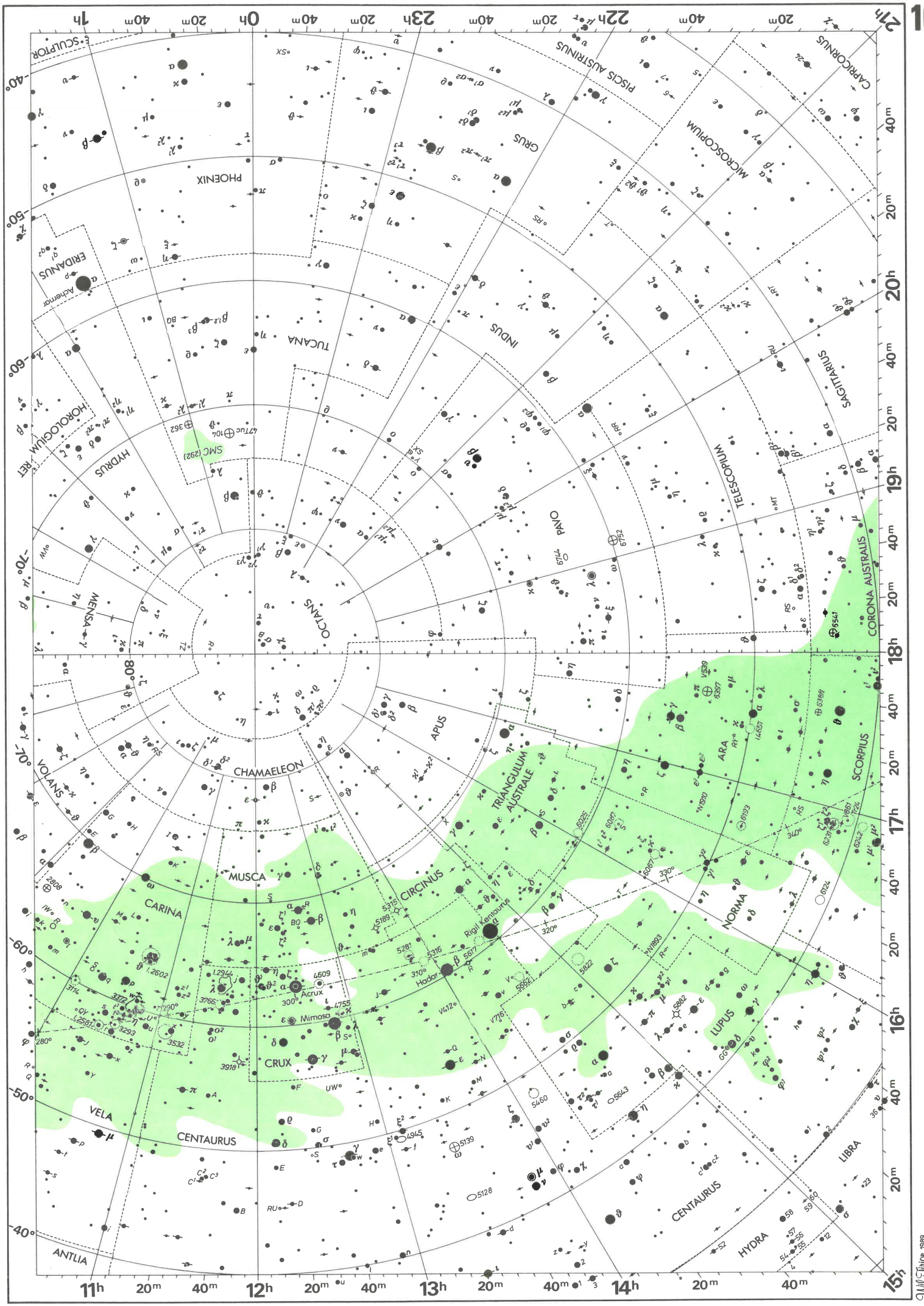

URSA MAJOR
LYNX
AUR
LEO MINOR
CANES VENATICI
GEMINI
Castor
Pollux
CANCER
COMA BERENICES
LEO
Regulus
CANIS MINOR
Procyon
MONOCEROS
VIRGO
SEXTANS
HYDRA
CORVUS
CRATER
PUPPIS
PYXIS
ANTLIA
CENTAURUS
VELA
20m
12h
40m
20m
11h
40m
20m
10h
40m
20m
9h
40m
20m
8h
40m
+50°
+45°
+40°
+35°
+30°
+25°
+20°
+15°
+10°
+5°
0°
-5°
-10°
-15°
-20°
-25°
-30°
-35°
-40°
-45°
-50°


UMA
CANES VENATICI
URSA MAJOR
BOÖTES
CORONA BOREALIS
HERCULES
COMA BERENICES
LEO
SERPENS CAPUT
VIRGO
OPHIUCHUS
LIBRA
CRATER
CORVUS
HYDRA
SCORPIUS
LUPUS
CENTAURUS
NORMA
Arcturus
Spica
Antares
NGP

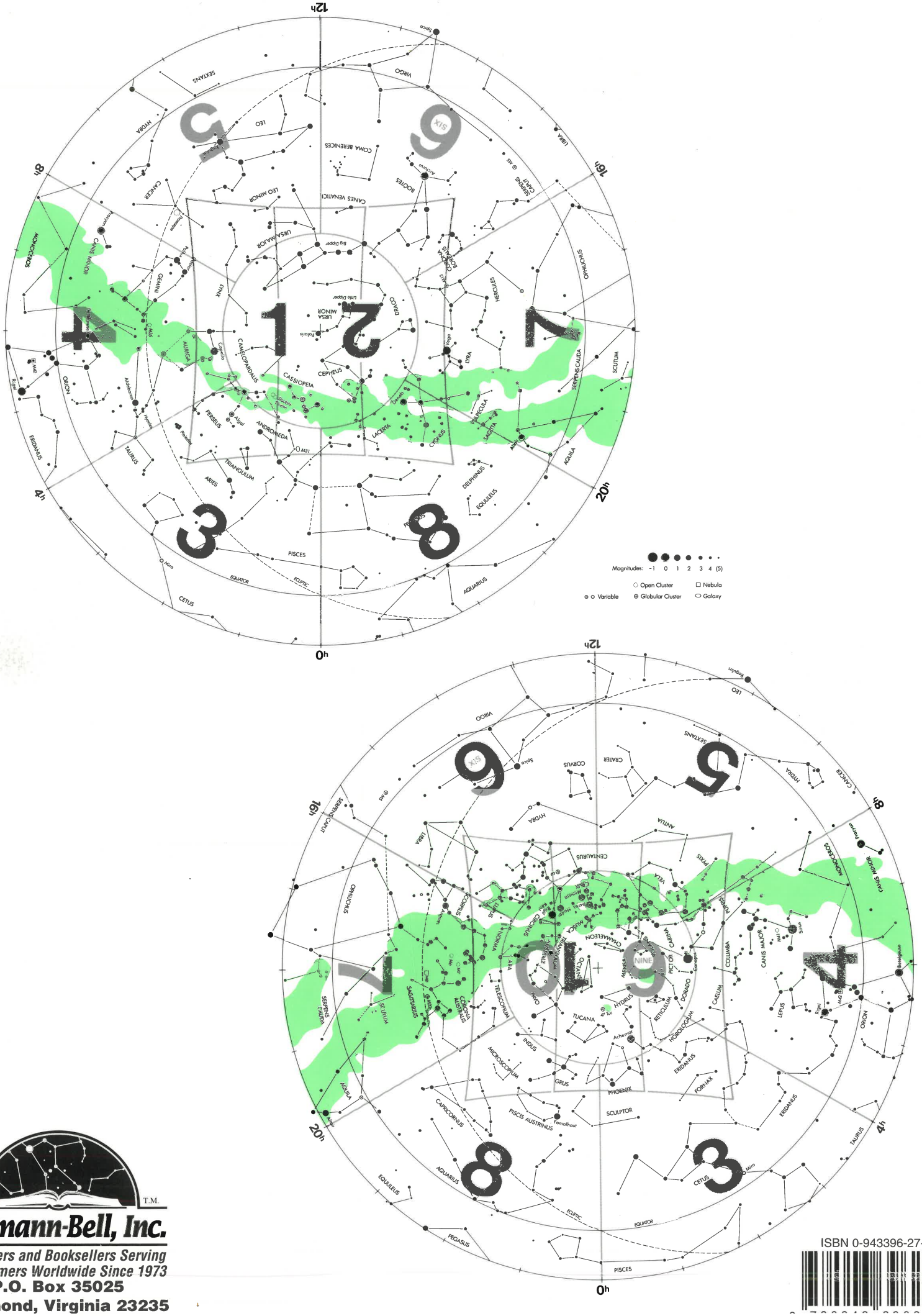

20m 20h 40m 20m 19h 40m 20m 18h 40m 20m 17h 40m 20m 16h 40m
+50° +45° +40° +35° +30° +25° +20° +15° +10° +5° 0° -5° -10° -15° -20° -25° -30° -35° -40° -45° -50°
DRACO
CYGNUS
Deneb
BOÖTES
HERCULES
LYRA
Vega
CORONA BOREALIS
VULPECULA
SAGITTA
DELPHINUS
SERPENS CAPUT
Altair
AQUILA
OPHIUCHUS
SCUTUM
SERPENS CAUDA
LIBRA
CAPRICORNUS
SAGITTARIUS
SCORPIUS
Antares
CORONA AUSTRALIS
LUPUS
NORMA
ARA
TELESCOPIUM
MIC
IND
M92 M13 M57 M56 M71 M27 M29 M39 M15 M2 M30 M72 M73 M5 M3 M53 M12 M14 M10 M107 M62 M9 M23 M25 M28 M22 M54 M55 M70 M69 M7 M6 M4 M80 M19 M12 M14 M12
N1934 N1963 N1919 N1670 N1783 N1960 N1936 N1943 N1947 N1918 N1927 N1898 N1910 N1917 N1848 N1504
Cr394
6811 6910 6871 6882/85 6709 6633 6572 6756 4665 6818 6822 6716 6530 6210 6383 6302 6281 6242 6124 5231 6541 6388 6193 6651 6712 6273 6144 6093 6121 6752 6723 6656 6809 6744 6584 6626 6638 6681 6717 6760 6779 6864 6934 6981 7009 7078 7089 7099 7124 7293 7314 7339 7354 7410 7424 7448 7479 7492 7510 7531 7552 7562 7606 7635 7654 7662 7686 7693 7713 7723 7727 7739 7744 7753 7772 7790 7814 7823 7841 7857 7873 7889 7906 7924 7938 7950 7962 7978 7994 8011 8028 8046 8062 8079 8096 8113 8130 8147 8164 8181 8198 8215 8232 8249 8266 8283 8300 8317 8334 8351 8368 8385 8402 8419 8436 8453 8470 8487 8504 8521 8538 8555 8572 8589 8606 8623 8640 8657 8674 8691 8708 8725 8742 8759 8776 8793 8810 8827 8844 8861 8878 8895 8912 8929 8946 8963 8980 8997 9014 9031 9048 9065 9082 9099 9116 9133 9150 9167 9184 9201 9218 9235 9252 9269 9286 9303 9320 9337 9354 9371 9388 9405 9422 9439 9456 9473 9490 9507 9524 9541 9558 9575 9592 9609 9626 9643 9660 9677 9694 9711 9728 9745 9762 9779 9796 9813 9830 9847 9864 9881 9898 9915 9932 9949 9966 9983 10000
Antares
Altair
Vega
Deneb
Antares
Altair
Vega
Deneb
Antares
Altair
Vega
Deneb


CASSIOPEIA
ANDROMEDA
LACERTA
CYGNUS
Deneb
PEGASUS
VULPECULA
SAGITTA
EQUULEUS
DELPHINUS
Altair
AQUILA
PISCES
CETUS
AQUARIUS
CAPRICORNUS
SAGITTARIUS
Fomalhaut
SCULPTOR
PISCIS AUSTRINUS
MICROSCOPIUM
PHOENIX
GRUS
INDUS
TELESCOPIUM
20m
0h
40m
23h
22h
21h
20h
+50°
+45°
+40°
+35°
+30°
+25°
+20°
+15°
+10°
+5°
0°
-5°
-10°
-15°
-20°
-25°
-30°
-35°
-40°
-45°
-50°


9
13h
12h
11h
10h
9h
CENTAURUS
ANTLIA
HYA
PYXIS
VELA
CRUX
CARINA
MUSCA
CIRCINUS
PUPPIS
CHAMAELEON
VOLANS
APUS
TRA
OCTANS
MENSA
LMC
DORADO
PICTOR
COLUMBA
PAVO
HYDRUS
RETICULUM
CAELUM
INDUS
HOROLOGIUM
TUCANA
Achernar
ERIDANUS
GRUS
PHOENIX
FORNAX
SCULPTOR
23h
0h
1h
2h
3h
-40°
-50°
-60°
-70°
-80°
Will Tirion



Will Tirion 1989



T.M.
Willmann-Bell, Inc.
Publishers and Booksellers Serving
Astronomers Worldwide Since 1973
P.O. Box 35025
Richmond, Virginia 23235

ISBN 0-943396-27-1